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UNITED STATES PATENT APPLICATION

FOR

BOX APPARATUS HAVING A REMOVAL SECTION

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BOX APPARATUS HAVING A REMOVAL SECTION

REFERENCE TO PENDING APPLICATIONS

This application is not referenced in any pending applications.

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REFERENCE TO MICROFICHE APPENDIX

This application is not referenced in any microfiche appendix.

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BACKGROUND OF THE INVENTION

1. Field of the Invention:

The invention relates to storage and shipping containers.

15 2. Background:

The typical storage or shipping box-type container 100 has been in the prior art for many years. See Fig. 4 This container 100, while varying in size, usually has similar components of four sides 102, each having a top side 104 and a bottom side (not shown). These sides are created from flaps 106 are folded inward to form the top and bottom side respectively. More specifically, the flaps attached to one pair of opposing sides are first folded inward, then the other pair of flaps attached to the other set of opposing sides are then folded creating a reinforced top or bottom side. These flaps 106 when folded create a seam. This seam is usually secured by either staples or by packing tape 108.

To remove either the top side or bottom side, the user may remove the tape, staples or other securing mechanisms. This can be done by cutting the tape, removing the staples, or otherwise manually removing the securing mechanism. This method is problematic in that it is time consuming and not efficient, especially when some businesses rely upon the quickness in opening up

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the containers.

The user may also remove the top or bottom flaps by cutting the flaps off of the box. This method is also problematic in that the primary way to remove the flaps is by the use of a cutting blade 110, such as a box knife or similar object. The use of a cutting blade increases the risk of injury to the user and damage to the contents inside the container.

Thus there is a need for a container that can provide for a safe and efficient access therein.

BRIEF SUMMARY OF THE INVENTION

The present invention satisfies the needs discussed above. The present invention is generally directed toward a storage and shipping container, more specifically toward a storage and shipping container that allows for access into the container in an efficient and safe manner.

As used herein, the term container refers to all storage and shipping containers, including those made from cardboard.

In one aspect, the present invention provides a box comprising a body having parallel front and rear sides along with parallel first and second end sides. Each end sides have a width and interconnects with the front side and said rear side.

A bottom side is formed from bottom flaps extending from the four sides along crease lines. These flaps cooperate with each other to form the bottom side. Typically, the two side flaps are folded inward then the front and rear flaps are folded inward. Box tape, staples, or other securing mechanisms are then usually applied to the seam between the front and rear flaps to secure the bottom side.

A top side is formed from top flaps in a similar manner as the bottom side. The top flaps, however, have perforations along their respective crease lines. These perforations allow the top flaps to be removed without removing the securing tape, staples, etc.

In another aspect, the present invention provides for the box as set out above, along with a front side tear-out segment disposed in the container's front side. This segment extends from the front side to the crease line defining the front side's top flap, allowing this portion of the front side to be removed along with the top flaps. When tape is used to secure the top side, it is common for a portion of the tape to extend beyond the top flaps and placed directly on the front side. By removing this portion of the front side along with the top flaps, access to the inside of the container can be accomplished without the need of cutting or breaking the container's original seal.

In another aspect, the present invention provides for the box as set out above, along with a rear side tear-out segment disposed in the container's rear side. This segment extends from the rear side to the crease line defining the rear side's top flap, allowing this portion of the rear side to be removed along with the top flaps. When tape is used to secure the top side, it is common for a portion of the tape to extend beyond the top flaps and placed directly on the rear side along with the front side. By removing this portion of the rear side along with the top flaps, access to the inside of the container can be accomplished without the need of cutting or breaking the container's original seal.

In another aspect, the present invention provides for the box as set out above, along with an opening aperture disposed in said front side to allow access to the front side tear-out segment.

In another aspect, the present invention provides for the box as set out above, along with an opening aperture disposed in said front side to allow access to the rear side tear-out segment.

In another aspect, the present invention provides for the box as set out above, along with an opening aperture disposed in said front side to allow access to the front side tear-out segment.

In yet another aspect, the present invention provides for the box as set out above, along

with perforations extending from the front side crease line into the front side. These perforations augment the crease line perforations in removing the top flaps.

Upon reading the above description, various alternative embodiments will become obvious to those skilled in the art. These embodiments are to be considered within the scope and spirit of the
5 subject invention, which is only to be limited by the claims which follow and their equivalents.

Further objects, features and advantages of the present invention will be apparent to those skilled in the art upon reference to the accompanying drawings and upon reading the following description of the preferred embodiments.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view an embodiment of the present invention.

FIG. 2 is a perspective view an embodiment of the present invention showing the top side exploded away therefrom.

5 FIG. 3 is a plan view of an embodiment of the present invention.

FIG. 4 is a perspective view of a prior art container.

FIG. 5 is a front view of an embodiment of the present invention.

FIG. 6A is a blown-up view of portion 6 as set out in FIG. 5 showing an embodiment of the present invention.

10 FIG. 6B is a blown-up view of portion 6 as set out in FIG. 5 showing an additional embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Before explaining the present invention in detail, it is to be understood that the invention is not limited in its application to the details of the construction and arrangement of parts illustrated in the accompanying drawings. The invention is capable of other embodiments and of being practiced or carried out in a variety of ways. It is to be understood that the phraseology and terminology employed herein are for the purpose of description and not of limitation.

In one embodiment of the present invention comprises a box 10 having a body 12 having parallel front 14 and rear sides 16 along with parallel first 18 and second end sides 20. Each end sides have a width and interconnects with the front side 14 and rear side 16.

A top side 40 is formed from top flaps 42-46 extending from the four sides along crease lines 30. These flaps 42-46 cooperate with each other to form the top side 40. Typically, the two side flaps 42 are folded inward then the front 44 and rear flaps 46 are folded inward. Securing tape 32 is applied to the seam 34 between the front 26 and rear flaps 28 to secure the bottom side 22. While box tape 32 is used in with this embodiment, those skilled in the art will recognize that other securing mechanism such as but not limited to staples can be used. The top flaps 42-46 have perforations 48 along their respective crease lines 50. These perforations 48 allow the top flaps 42-46 to be removed without removing the securing tape 32.

A bottom side 22 is formed from bottom flaps 24-28 in a similar manner as the top side 40, however without any perforations along its crease line 30.

In another embodiment, the present invention comprises a box 10 as set out above, along with a front side tear-out segment 52 disposed in the container's front side 14. This segment 52 extends from within the body of front side 14 to the crease line 50 defining the front side's top flap 44, allowing this portion of the front side 14 to be removed along with the top side 40.

It is common to apply a portion of securing tape to the front and rear sides of a container to assist in securing that container. By removing this segment 52 of the front side along with the top flaps 42-46, access to the inside of the container 10 can be accomplished without the need of cutting or breaking the container's original seal.

5 In another embodiment, the present invention provides for a box 10 as set out above, along with a rear side tear-out segment 54 disposed in the container's rear side 16. This segment 54 extends from the rear side 16 to the crease line 50 defining the rear side's top flap 46, allowing this segment 54 of the rear side 16 to be removed along with the top flaps 42-46.

10 In another embodiment, the present invention provides for a box 10 as set out above, along with an opening aperture 56 disposed in the front side 14 and rear side 16 to allow access to the front side 52 and rear side tear-out segments 54.

15 In another embodiment, the present invention provides for a box 10 as set out above, along with perforations 60 extending from perforations 48 extending from the top flaps 42-46 crease line 50 into the front side 14 and rear side 16 respectively. These perforations 60 augment the crease line perforations 48 in removing the top flaps 42-46.

20 While the invention has been described with a certain degree of particularity, it is manifest that many changes may be made in the details of construction and the arrangement of components without departing from the spirit and scope of this disclosure. It is understood that the invention is not limited to the embodiments set forth herein for purposes of exemplification, but is to be limited only by the scope of the attached claims, including the full range of equivalency to which each element thereof is entitled.